Amendments to the claims:

This listing of claims will replace all prior versions and listings of claims in the application:

AMENDMENTS TO THE CLAIMS

1-65. (Canceled)

66. (Currently amended) A system for collecting a plurality of samples of breath of a subject comprising:

a breath conduit adapted to convey exhaled breath from the subject;

a sensor for determining a characteristic of said breath exhaled from the subject;

a plurality of sample containers for collection of said plurality of samples; and

a sample distributor which directs different predetermined samples of said breath to different ones of said plurality of sample containers according to the sensed characteristic of said exhaled breath.

67. (Previously presented) A system according to claim 66 and also comprising a controller, and wherein said different predetermined samples of said breath are directed to different ones of said plurality of sample containers according to said controller.

68 (Previously presented) A system according to claim 66 and wherein said sample distributor is operated manually.

69. (Previously presented) A system according to claim 66 wherein said sample distributor directs said samples at predetermined times.

70. (Previously presented) A system according to claim 69 wherein said predetermined times are at fixed time intervals.

71. (Previously presented) A system according claim 69 wherein said predetermined times are determined by a characteristic of said breath of the subject.

72. (Previously presented) A system according to claim 71 wherein said characteristic of said breath is at least one of the carbon dioxide concentration, the oxygen concentration, the excess pressure, the temperature, the humidity, the flow rate and the sound of said breaths.

73. (Previously presented) A system according to claim 69 wherein said predetermined times are determined by at least one physiological characteristic of the subject.

74. (Previously presented) A system according to claim 73 wherein said at least one characteristic of the subject is selected from a group consisting of the subject's breath composition, breath rate, heart rate, blood pressure, gastric pH value and temperature.

75. (Previously presented) A system according to claim 66 and wherein said breath conduit comprises an oral/nasal cannula.

76. (Previously presented) A system according to claim 66 and wherein said breath conduit comprises a breath tube through which the subject provides breath by blowing.

77. (Previously presented) A system according to claim 76 and also comprising a one way check valve for directing said breath samples from said breath tube towards said plurality of sample containers.

78. (Currently amended) A system according to claim 66 and also comprising ~~a breath analyzer for determining a characteristic of said breath; and~~ a valving system to select at least part of said exhaled breath for transfer to said sample distributor, according to said characteristic of said exhaled breath.

79. (Currently amended) A system according to claim 67 and also comprising ~~a breath analyzer for determining a characteristic of said breath; and~~ a valving system to select at least part

of said exhaled breath for transfer to said sample distributor, according to said characteristic of said exhaled breath.

80. (Currently amended) A system according to claim 78 and wherein said ~~breath analyzer~~ sensor is a capnographic analyzer, and said characteristic is the carbon dioxide concentration of said breath.

81. (Currently amended) A system according to claim 79 and wherein said ~~breath analyzer~~ sensor is a capnographic analyzer, and said characteristic is the carbon dioxide concentration of said breath.

82. (Currently amended) A system according to claim 80 wherein said at least part of said breath is determined by said carbon dioxide concentration of said breath.

83. (Currently amended) A system according to claim 82 wherein said at least part of said breath is collected when said carbon dioxide concentration of said breath is at the plateau value of its waveform, such that alveolar air is sampled.

84. (Previously presented) A system according to claim 79 wherein said controller causes said sample distributor to direct said samples at predetermined times.

85. (Previously presented) A system according to claim 84 wherein said predetermined times are at fixed time intervals.

86. (Previously presented) A system according to claim 84 wherein said predetermined times are determined by a characteristic of said breaths of the subject.

87. (Previously presented) A system according to claim 86 wherein said characteristic of said breath is at least one of the carbon dioxide concentration, the oxygen concentration, the excess pressure, the temperature, the humidity, the flow rate and the sound of said breaths.

88. (Previously presented) A system according to claim 84 wherein said predetermined times

are determined by a physiological characteristic of the subject.

89. (Previously presented) A system according to claim 88 wherein said at least one physiological characteristic of the subject is selected from a group consisting of the subject's breath composition, breath rate, blood pressure, gastric pH value and temperature.

90. (Previously presented) A system according to claim 66 and wherein at least one of said sample containers is a flexible bag.

91. (Previously presented) A system according to claim 66 and wherein at least one of said sample containers has rigid walls and is evacuated before collection of said samples.

92. (Previously presented) A system according to claim 80, and wherein said valving system is adapted to direct breath exhaled when said carbon dioxide concentration of said breath is at the plateau value of its waveform into a first one of said sample containers, and breath inhaled when said carbon dioxide concentration of said breath is at the baseline of its waveform into a second one of said sample containers.

93. (Previously presented) A system according to claim 92, and wherein at least said first and second ones of said sample containers contain a material which absorbs a predetermined gas of said breath of the subject, and at least said first and second ones of said plurality of sample containers comprise a heater for expelling said predetermined gas of said breath of the subject.

94.(Previously presented) A system according to claim 92 and wherein said predetermined gas is a volatile organic compound.

95. (Currently amended) A system for collecting a plurality of samples of breath of a subject comprising:

a breath conduit adapted to convey breath from the subject;

a valving system to select at least part of said breath, said valving system being actuated according to a physiological characteristic of the

subject;

a plurality of sample containers for collection of said plurality of samples; and

a sample distributor which directs different predetermined samples of said breath to different ones of said plurality of sample containers.

96. (Previously presented) A system according to claim 95 wherein said at least one characteristic of the subject is selected from a group consisting of the subject's breath composition, breath rate, heart rate, blood pressure, gastric pH value and temperature.

97. (Previously presented) A system according to claim 95 and wherein said breath conduit comprises a cannula.

98. (Previously presented) A system according to claim 95 and wherein said breath conduit comprises a breath tube.

99. (Previously presented) A system according to claim 98 and also comprising a pressure sensor for determining the pressure of said breath, and wherein said valving system is actuated according to said pressure of said breath.

100. (Previously presented) A system according to claim 99 and wherein said sample distributor is operated manually.

101. (Previously presented) A system according to claim 99 and also comprising a controller causing said sample distributor to direct said different predetermined samples to said different ones of said plurality of sample containers.

102. (Previously presented) A system according to claim 101 wherein said controller prompts the subject at predetermined times to provide breath by blowing.

103. (Previously presented) A system according to claim 95 and wherein at least one of said sample containers is a flexible bag.

104. (Previously presented) A system according to claim 95 and wherein at least one of said sample containers has rigid walls and is evacuated before collection of said samples.

105-107. (Canceled)

108.(Currently amended) A method of determining, in a breath test of a subject, the change in volume of a species in the subject's breath, comprising the steps of:

measuring a first volume of said species over a unit of time;

measuring a first concentration of said species ~~on~~ in the breath of the subject by means of said breath test;

measuring a second concentration of said species in the breath of the subject by means of said breath test;

monitoring a physiological parameter of the subject related to the metabolic rate of the subject, for change in said parameter between the measuring of said first concentration and said second concentration; and adjusting said second concentration according to change determined in said physiological parameter, such that said second concentration measured is representative of the volume of said species over said unit of time in the subject's breath.

109. (Previously presented) The method of claim 108, wherein said physiological parameter of the subject is at least one of the pulse rate of the subject, the integrated area under a capnographic measurement of the subject's breath, and the breath flow rate of the subject.

110. (New) A method for determining the concentration of a volatile organic compound in the breath of a subject, compared to that of the ambient air, comprising the steps of:

collecting breath from the subject through a breath conduit;

determining the waveform of the breath of the subject by capnographic analysis;

directing breath from different parts of said waveform of said subject to different sample containers using a sample distributor actuated according to the results of said

capnographic analysis, such that a first one of said different sample containers collects at least one sample from the breath of said subject indicative of the ambient air inhaled by the subject; and a second of said different sample containers collects at least one sample from the breath of said subject indicative of the alveolar breath of the subject; and

analyzing said exhaled breath collected in said different sample containers for volatile organic compound content.

111. (New) A method according to claim 110 and wherein said first one of said different sample containers collects breath at the baseline of the waveform of said breath of the subject, and said second one of said different sample containers collects breath from the plateau value of the waveform of said breath of the subject.

112. (New) A method according to claim 110 and wherein at least one of said different sample containers contains a material which absorbs at least part of said breath of the subject.

113. (New) A system for collecting a plurality of samples of breath of a subject comprising:

a breath conduit adapted to convey exhaled breath from the subject;

a plurality of sample containers for collection of said plurality of samples; and

a manually operated sample distributor which directs different predetermined samples of said breath to different ones of said plurality of sample containers.

114. (New) A system according to claim 113, further comprising a controller providing prompts to said subject to operate said sample distributor manually.

115. (New) A system according to claim 114, further comprising a breath sensor, and wherein said controller providing prompts to said subject to operate said sample distributor manually according to the output of said breath sensor.

116. (New) A system according to claim 113, wherein said manually operated sample distributor is operated at predetermined intervals.

117. (New) A method of analyzing multiple samples of exhaled breath of a subject, comprising the steps of:

collecting exhaled breath from the subject through a breath conduit; and

directing different predetermined samples of said breath to different ones of a plurality of sample containers by means of a sample distributor,

wherein said breath samples in said plurality of collection containers are analyzed remotely from said breath collection system.

118. (New) A method according to claim 117, wherein at least said sample distributor and said plurality of sample containers are carried by the subject in a portable package.

119. (New) A method according to claim 118, wherein said portable package is such that it does not impede the subject's regular activities.